

What is claimed is:

- Sub
A3
- 1 X. A method for developing a graphical device management application
- 2 comprising:
- 3 creating a graphical component using a graphical programming language;
- 4 associating the graphical component with a device configuration command;
- 5 linking the associated graphical component with a console user interface
- 6 (CUI) and a configuration kernel (CK), the CUI and CK having code for
- 7 configuring a remote device according the device configuration
- 8 command; and
- 9 building a graphical user interface (GUI) from the linked graphical component,
- 10 the CUI and the CK.
- 1 2. The method of claim 1 wherein associating the graphical component with a
- 2 device configuration command is performed using a macro.
- 1 3. The method of claim 1 wherein creating a graphical component comprises
- 2 adding a control to a dialog.
- 1 4. The method of claim 1 wherein building a GUI comprises compiling the linked
- 2 graphical component, the CUI and the CK on a general purpose computer system.
- 1 5. The method of claim 1 wherein building a GUI comprises interpreting the
- 2 linked graphical component, the CUI and the CK on a general purpose computer
- 3 system.

1 6. An apparatus comprising:
2 a configuration kernel (CK) having code for configuring a device from a
3 configuration;
4 a console user interface (CUI) having code for updating the configuration;
5 a graphical user interface (GUI) having code for receiving an update to the
6 configuration in response to a user action; and
7 a communications mechanism for communicating the received update from
8 the GUI to the CUI, for communicating the updated configuration from the CUI to the
9 CK, and for communicating the device configuration from the CK to the CUI and
10 from the CUI to the GUI.

1 7. The apparatus of claim 6 wherein the code for configuring a device comprises
2 at least one of a variable, a data structure and a function.

1 8. The apparatus of claim 6 wherein the code for configuring a device resides in
2 a library linked to the CUI and the GUI.

1 9. The apparatus of claim 6 wherein the code for updating the configuration
2 comprises at least one command of a command set.

1 10. The apparatus of claim 6 wherein the code for updating the configuration
2 resides in a library linked to the CUI and the GUI.

1 11. The apparatus of claim 6 wherein the code for configuring a device is a
2 reusable firmware, the reusable firmware having been originally coded for operation
3 on the device.

1 12. The apparatus of claim 6 wherein the code for updating the configuration is a
2 reusable firmware, the reusable firmware having been originally coded for operation
3 on the device.

1 13. A computer-readable medium comprising computer-executable instructions
2 for performing:
3 creating a graphical component using a graphical programming language;
4 associating the graphical component with a device configuration command;
5 linking the associated graphical component with a console user interface
6 (CUI) and a configuration kernel (CK), the CUI and CK having code for configuring a
7 remote device according the device configuration command; and
8 building a graphical user interface (GUI) from the linked graphical component,
9 the CUI and the CK.

1 14. The computer-readable medium of claim 13 further comprising computer-
2 executable instructions for performing associating the graphical component with a
3 device configuration command using a macro.

1 15. The computer-readable medium of claim 13 further comprising computer-
2 executable instructions for performing compiling the linked graphical component, the
3 CUI and the CK on a general purpose computer system.

1 16. The computer-readable medium of claim 13 further comprising computer-
2 executable instructions for performing interpreting the linked graphical component,
3 the CUI and the CK on a general purpose computer system.

1 17. A method of configuring a networked device using a workstation comprising:
2 initializing a graphical component associated with a configuration command
3 to a corresponding state of a configuration kernel for a remote networked device;
4 displaying on a window of a remote workstation, the initialized graphical
5 component;
6 receiving an update to the configuration command from a user action on the
7 associated graphical component;
8 passing the updated configuration command to a virtual console; and
9 updating by the virtual console the state of the configuration kernel with the
10 passed updated configuration command.

1 18. The method of claim 17 further comprising:
2 determining whether the updated configuration command is interdependent
3 with a second configuration command, and if so refreshing the graphical component
4 associated with the configuration command to reflect the updated state of the
5 configuration kernel.

1 19. The method of claim 17 further comprising:
1 uploading the updated state of the configuration kernel to the remote
2 networked device.